FUJI FACTS

Newsletter of the
Atari Computer Enthusiasts of Columbus

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YOU'RE DESPICABLE !!
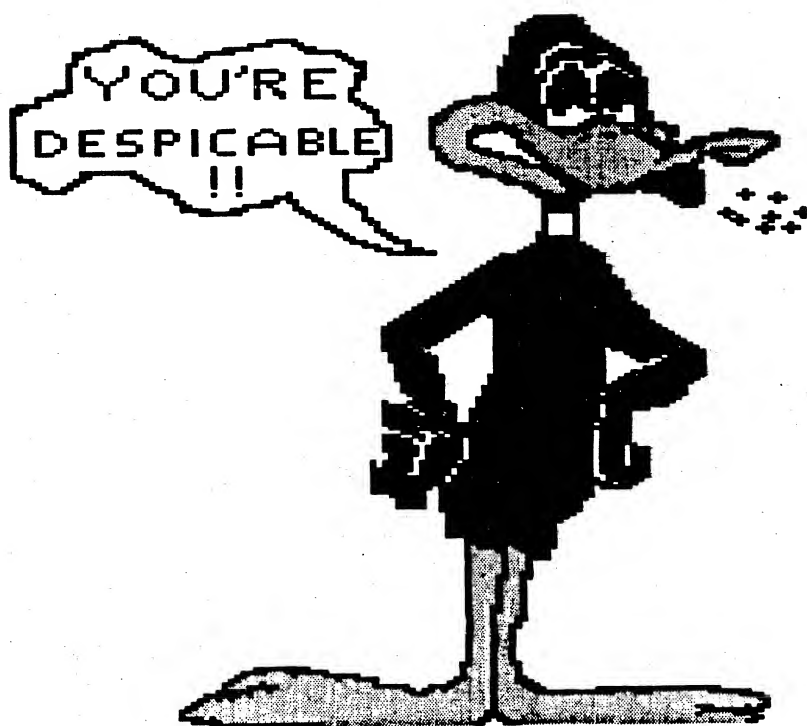
DAFFY.PIC

INSIDE THIS ISSUE:

This newsletter is written and published monthly by the Atari Computer Enthusiasts of Columbus (ACEC). ACEC is an independent, non-profit organization interested in exchanging information about any and all Atari Home Computer Systems.

Our main meetings are held on the second Monday of each month at 7:15 p.m., at DeSales High School (on Karl Road, just south of Morse Rd.), and are open to the public. Other Special Interest meetings are held as announced at the main meeting.

Dues are $12.00 per year, and entitle members to all club benefits (Newsletter, Disk of the Month, Publications Library, SIG meetings, group discounts at selected area merchants, etc.).

Fuji Facts welcomes contributions of articles, reviews, editorials and any other material relating to the Atari computers, or compatible hardware devices and software packages.

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The Editor's Column

To try may be to die, but not to care is never to be born.

          - William Redfield

Well, I'll try to keep it short this month, but I'm afraid I have some bad news to report. For this month's newsletters, I had absolutely <u>NO</u> submissions from our more than 125 members. Is there not a single person in central Ohio with an opinion, or a new piece of software or hardware to write about?

Owing to this lack of information, I decided I could either not publish anything this month, or I could go through the stack of reprints that I've been collecting from other clubs' newsletters. As you can see, I decided on the latter.

The information in these articles is just a small sample of the vast amount of Atari-related information floating around out there. I have every intention of including more of these reprints in future issues of Fuji Facts, especially when they're this good. I do think it's a pity though, that some of this wisdom couldn't have come from ACEC.

I would also like to regretfully reactivate an old editorial policy of ours -- if I ever face another month with nothing to print from our club, that's exactly what I'll do: print nothing! If you want an interesting and varied newsletter every month, you're going to have to contribute once in a while. I have always been meaning to put together some kind of a survey to find out what kind of articles you'd like to see in Fuji Facts. Instead, I guess I'm going to find out simply if you want a Fuji Facts or not. The decision is up to you.

Warren

FREE MONEY!

Here's a great new concept from the officers of the Atari Computer Enthusiasts of Columbus: ACEC Money!

How does it work? Simple. Every time you do something for your users' group, the users' group will do something for you! Payment as ACEC credit dollars will be issued for the following services:

- Write an article for Fuji Facts
- Submit a program for the DOM
- Bring in a new dues-paying member

Payments will be as follows (subject to change, as announced in future issues of Fuji Facts):

- each article = one ACEC dollar
- each program = two ACEC dollars
- each member = three ACEC dollars

Just what good are ACEC dollars? They can be used as payment for any of the many services which ACEC offers for which there is a charge. For example, bring in a new member and a program for the Disk of the Month, and you get five ACEC dollars, which could then be exchanged for a free DOM (normal charge = $5.00)!

Use them to buy disks; use them to pay your membership; use them to buy raffle tickets; or use them to sign up for our in-depth tutorial classes. The choice is yours!

As this program helps us, it helps you, too! Fuji Facts will profit from more new and varied articles, the DOM's will reflect your interests and our membership will grow!

Please, support the club that supports you!

NOTICE: This announcement was prepared in advance, and is therefore subject to modification by the ACEC membership.

        -wgl

ACCENT ON BASIC COMPUTING
A Brief Introduction to Spreadsheets

by Ron Peters

Last time we explored word processing, and how it replaces your typewriter, scissors, paste, wastebasket and Xerox machine. Now let's take a look at the so-called "spreadsheet" programs and see what they can do for us.

Perhaps some of you have seen the traditional, green accounting ledger paper, with several columns across the top and 25-30 lines running top to bottom. The "bean counter" types use these ledger sheets for budgeting, inventory, and ledger purposes. A typical budget sheet would have the months of the year across the top, and line items (advertising, telephone, salaries, travel, etc.) running down the left side.

Then someone plugs in the dollar amounts for each item under every month, like the following (brief) example for a company we'll call Sicktemps (they supply sick temporaries to companies with lower than average absenteeism problems):

```
1987 EXPENSE BUDGET - SICKTEMPS, Inc.
Item       Jan  Feb  Mar  Apr  May  Jun  Total
Insurance   50   50   50   50   50   50   300
Salaries   100  100  100  100  100  100   600
Supplies    25   25   25   25   25   25   150
Telephone   10   10   10   10   10   10    60
  Totals   185  185  185  185  185  185  1110
```

The above could easily be a home budget, or a listing of inventory items in different categories, or names and addresses, etc. In other words, the "spreadsheet" does not have to be just numbers, it can contain names, lists, text — anything.

OK, back to the task at hand. Looking at the above spreadsheet it is obvious that the columns (down) and rows (across) are cross-totaled. Thus, you can easily see the total expense for each line item (e.g., Insurance) and or each month, with a grand total at the lower-right.

If you are doing this budget on paper, and decide that supplies are going to cost $35 per month, instead of the original $25, you will have to erase all the numbers in that row, as well as all the totals, and do a lot of addition to get a corrected budget sheet.

Here comes the electronic spreadsheet. Instead of putting these numbers on a sheet of paper, you "type" then onto a worksheet in your computer. And, you set up the worksheet so that it will automatically give you totals for each row and column. Now, change the supplies amount to $35 and the program instantly recalculates all the totals -- before you can blink!

This feature also gives you the "what if" option; that is, the ability to change any of the data to see the results on the total. For example, if you were doing a home budget, you could ask "what if" my wife were to spend $300 per month instead of $1000 per month on clothes? The final results would be immediately calculated (but not admissible in divorce court).

"Big deal," you say. Well, it is a big deal if you have 120 columns and 234 rows, with a lot of changes to make. A computer with 512K of memory can typically hold a spreadsheet that would be 20 feet wide by about 40 feet high on paper. Try working on that within the confines of your 10 X 10 foot office!

"How do I look at that big sucker on my computer screen?," you say (again). Through a series of "windows" that allow you to look at any portion of the spreadsheet on your computer screen.

Each portion of an electronic spreadsheet (called a cell) can contain numbers, text, or formulas. The formulas can range from simple sums of columns (for example) to complicated algebraic expressions.

Any portion (or all) of the spreadsheet can be printed or saved on a floppy disk for later use. You can even create a "template" spreadsheet, which is nothing more than a spreadsheet with the labels and formulas, but without the actual data. For example, our budget template would have the row and column labels, and the total formulas, but no actual monthly dollar amounts. Then we could use the budget template over and over for different year budgets.

Some spreadsheet programs (like *LOTUS 1-2-3* or *VIP Professional*) can produce graphs of the data contained in a spreadsheet. Or you can transfer any portion of the spreadsheet to a document in your word processor.

Perhaps the most practical application I have found for using a spreadsheet at home is for doing my income taxes. Using a tax template (that purchased from the NOVATARI disk library) I can plug in all the numbers for each tax schedule and see the final results (hopefully a refund). Using the "what if" function here can be real fun!

Like a word processing program, you don't have to spend a fortune to get a good spreadsheet program that will more than do the job for you. I use ~~Synfiler,~~ ← the SynC is the spreadsheet which costs about $40. I'm sure there are a lot of other programs out there in the same price range that are equally as good. Shop around.   *- Ed.*

M O D E M   M A N N E R S   &   E T I Q U E T T E
Reprinted from the Houston Atari users
With our THANKS!!

The following are a few points of general BBS etiquette. If you wish to maintain your welcome on whatever system you happen to call, it would be to your advantage to observe these few rules.

1. Dont habitually hang up on a system. Every sysop is aware that accidental disconnections happen once in a while but we do tend to get annoyed with people who hang up every single time because they are too lazy to terminate properly or they assume that the 10 seconds they save will alter their phone bill. "Call waiting" is not an acceptable excuse for long. If you have it and intend to use the line to call BBS systems, you should either have it disconnected or find some other way to circumvent it.

2. Don't do dumb things like leave yourself a message that say's "just testing to see if this thing works". Also, don't leave whiney messages that say "please leave me a message". If you want to get messages, start by reading the ones that are already online and get involved in the conversations that exist.

3. Don't use the 'Yell for Sysop or Chat mode" unless you really have some clear-cut notion of what you want to say and why. Almost any sysop is more than happy to answer questions or offer help concerning his system, but have a good reason to call the sysop.

4. When you are offered a place to leave comments hen exiting a system, don't try to use this area to k the sysop questions. If you have a question or statement to make and expect the sysop to respond to it, it should always be made in the section where all the messages are kept. This allows the sysop to help many people with the same problem with the least amount of effort on his part.

5. Before you log on with your favorite pseudonym, make sure that handles are allowed. Most sysops don't want people using handles on the system. There is not enough room for them; they get silly games of one-upmanship started, it is much nicer to deal with a person on a personal basis; and last but not least, everyone should be willing to take full responsibility for his actions or comments instead of slinging mud behind a phoney name.

6. Take the time to log on properly. There is no such place as WVC, SLC, or BNTFL or any other of a thousand other abbreviations people used instead of their proper city. You may think that everyone knows that RIV is supposed to mean, but every BBS has people calling from all around the country and I assure you that someone from PODUNK IOWA has no idea what you are talking about.

7. Don't go out of your way to make rude observations like "gee, this system is slow". Every BBS is a trade off of features. You can generally assume that if someone is running a particular brand of software, he is either happy with it or he'll decide to find another system he likes better. Constructive criticism is somewhat welcome. If you have an alternative method that seems to make good sence then run it up the flagpole.

8. When leaving messages, stop and ask yourself hether it is necessary to make it private. Unless ere is some particular reason that everyone shouldn't know what you are saying, don't make it private. We don't call them Bulletin Boards for nothing folk's. It's very irritating to other callers when there are huge blank spots in the messages that they can't read and it stifles interaction between callers.

9. If your favorite BBS has a time limit, observe it. If it doesn't, set a reasonable limit yourself and abide by it. Don't tie up a system until it finally kicks you off and then call back immediately. This same rule applies to downloading or playing games. Only one person at a time can be logged on to a BBS and it isn't fair to everyone else if you over stay your welcome. Remember, a BBS is best when it can be left wide open. If you try and cheat the rules you just hurt everybody by forcing the sysop to adopt more stringent policies. I can't count the number of systems that are now locked tighter than a drum because of people that cheat and abuse.

10. Don't call a BBS just to look at the list of other BBS numbers. Most especially don't call a system as a new user and run right to the other numbers list.

11. Have the common courtesy to pay attention to what passes in front of your face. When a BBS displays your name and asks "IS THIS YOU?", don't say yes when you can see perfectly well that it's misspelled. Also don't start asking questions about simple operation of a system until you have thoroughly read ALL of the instructions that are available to you. I assure you that it isn't much fun to answer questions about a way a BBS does one particular thing or another for the thousandth time when the answer is prominently displayed in the instructions or bulletins, if a caller would only bother to look. On the other hand, if you have read the instructions and find them vague, take the time to leave the sysop a nice message telling him about your problem and explain how it might be changed to help others understand better.

12. If by some chance you should encounter an error while you are online(HEAVEN FORBID!), always take the time to leave the sysop a message describing the circumstances. Don't just say "there's an error". That is not helpful in the least. Chances are that the system tells him when errors have occured. What he needs to know is what you were doing when the error occured so that he can have some chance of finding and correcting it. If the error happened after you input something, tell him what it was. Remember that a BBS can't improve unless you're willing to help.

13. Don't be personally abusive. It doesn't matter whether you like the Sysop or think he's a jerk. The fact remains that he has a large investment in making his computer available, usually at no cost, out of the goodness of his heart. He also spends 1-2 hours a day in maintaining the system. If you don't like a sysop of his system, just remmember that you can "change the channel" anytime you want.

14. Keep firmly in mind that you are a guest on any BBS you happen to call. Don't think of logging on as one of your basic human rights. Every person that has ever put a computer system online for the use of other people has spent a lot of time and money to do so. While he doesn't expect nonstop pats on the back, it seems reasonable that he should at least be able to expect fair treatment from his callers. This includes following any rules that the sysop has laid down.
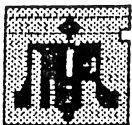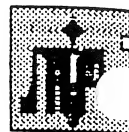
Direct Screen Writing
By Frank Daniel
Reprinted from SLCC Journal

Some years ago I was writing a program that in order to be user friendly required a few menus. Well as you can imagine, this was not too much of a problem. Anybody that has ever written a multi-tasking utility has used a menu at one time or another.

But as the program got larger, the number of menus got larger and most of the menus were getting sub-menus. This WAS getting to be a problem. Not only were these menus taking up a lot of memory, but it was taking longer and longer to get from point A to point B in the program.

Now there are two things I really hate. One is programs that gobble up too much memory. The other is waiting for the program to finish printing a menu. I faced a real dilemma. It is bad enough having just one of these problems in my programs. But both?? NO WAY!! My self respect could not take it. I had to do something!!

I was now faced with three options if I were to continue the project. These were:

1. Doing a complete rewrite of the command processor into a CPM type system.

2. Developing a hybrid which would be a cross between the menu system and the CPM system.

3. Find a way to change the menus fast.

I had to rule out the first option right off the top. A major rewrite just could not be done in the time available. The second option went very quickly afterwards. Though it would not mean a major rewrite, I just could not bring myself to do it (self respect again...drat it). All that left was changing the menus rapidly.

There are two methods of updating the screen quickly. One is page flipping and the other is direct screen writing.

Page flipping is the fastest method of changing the display known to an ATARI programmer. Just change two bytes in the display list and the whole screen changes. But with all this speed comes a few problems.

One, you have to preset all of your menus. By that I mean you have to make sure that all of the characters in the menu have been offset correctly. This is because ANTIC has its own set of character values which are very different from ASCII or ATASCII. Another problem is arranging the menus in memory. The ANTIC is a bit touchy about which page boundaries get passed when describing the screen's data area. (Hint: NEVER-EVER try to pass a 4K boundary!!)

The worst problem with page flipping though was the amount of memory it would use. The "GRAPHICS 0" screen mode uses 960 bytes for it Load Memory Scan (LMS) or data area. Page flipping would require that a number of blocks this size be set aside for the exclusive use of the menu driver. Add to this the dead areas between the menus needed to prevent page boundary problems and you can easily see that the amount of usable program memory is quickly diminished.

That leaves direct screen writes. Doing direct writes also has its problems. The first, like page-flipping, is that most of the text requires offsetting. This is not a big problem. There are many ways to rectify this. You can precalculate the offsets or write a short program that does it for you. Another method is to include an offset routine in the program. This is not very efficient for a menu driver but is very necessary when the text is varied or unknown. I actually use this method in the preceding demo.

Another problem with direct writes is parameter passing. How do you tell the routine where the text is, how long it is and where on the screen to put it. The solution to this is also varied. The first that comes to mind is reserving a place in memory for the parameters. When dealing with BASIC though, it is easier to use the stack.
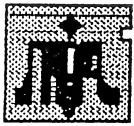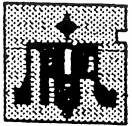
A=USR(CDE,X,Y,ADR(A$),LEN(A$))

or the alternate

A=(CDE,ADR(A$),LEN(A$))

CDE is the address of the machine code string. X is the screen column and Y is the row position where you want to start the display. A$ is the string to be displayed. If you do not pass an X and Y parameter, the routine assumes that you want to use the present cursor position as default.

The routine will display all characters with one exception. The EOL character (155) is used as a line delimeter. This for multi-line displays without the need of counting the characters. To go to the next line, simply insert an EOL character at the appropriate location in the string. One warning, the routine assumes that your starting column position is the left margin and will start from there.

While we are on the subject of warnings, let me caution you about a few items.

First, with the exception of screen position, the routine DOES NOT do any error checking. You can pass strings larger that the screen. This normally is not a problem, but forlorn is the person who does this with a relocated display list and no backup!

If you do make an error in the screen position, the value 141 (cursor out of range) will be passed back.
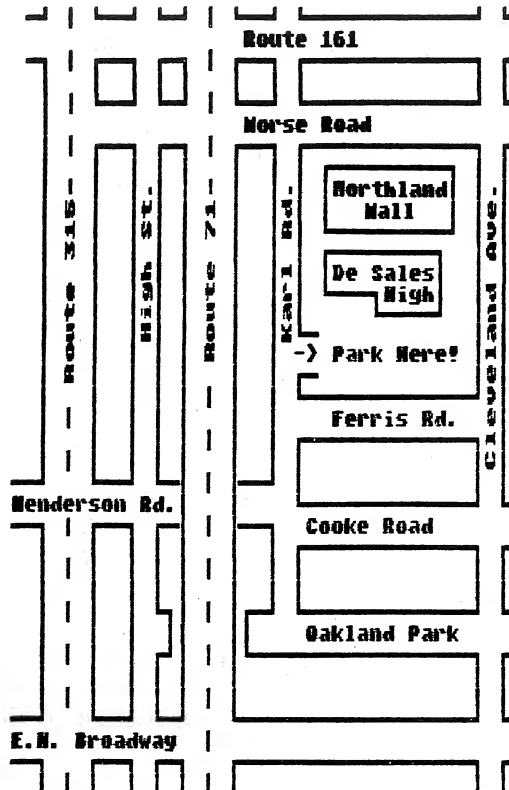
Do not let the machine code call a subroutine. BASIC gets a little confused. The program does not crash, but does not work right.

```
1 REM ** SAN LEANDRO COMPUTER CLUB **
10 CLR
20 POKE 82,0:POKE 83,40:POKE 752,1:? "
K"
30 DIM A$(960),CODE$(196)
40 REM ** CODE LODING ROUTINE **
70 POSITION 13,2:? "LOADING CODE":FOR
I=1 TO 195:READ A:CODE$(I,I)=CHR$(A):N
EXT I
80 CDE=ADR(CODE$)
90 REM ** INITIALIZE TEST STRING **
110 POSITION 10,4:? "INITIALIZING STRI
NG":FOR J=1 TO 40:FOR I=0 TO 23:K=I*40
+J:A$(K,K)=CHR$(64+J)
120 NEXT I:NEXT J
130 REM
140 REM ** SHOW SPEED DIFFERENCE BETWE
EN A PRINT AND A DIRECT WRITE **
150 REM
160 ? "K":POSITION 12,2:? "FIRST USE A
 PRINT":POKE 20,0
170 IF PEEK(20)<100 THEN 170
180 ? A$;:POKE 20,0
190 IF PEEK(20)<50 THEN 190
200 ? :? "          NOW THE FAST WA
Y"
210 FOR I=0 TO 1000:NEXT I
220 FOR I=0 TO 24:? :NEXT I:POSITION 0
,20
230 A=USR(CDE,0,0,ADR(A$),LEN(A$))
240 FOR I=0 TO 500:NEXT I
250 ? "K":? "        NOW FOR A LITTLE FUN
 WITH";:POKE 20,0
260 IF PEEK(20)<100 THEN 260
280 REM ** SHOW POSITIONAL CAPABILITIE
S **
300 A$="":A$=" FAST RANDOM screen acce
ss ":A$(27,27)=CHR$(30):A$(1,1)=CHR$(3
1)
310 A=USR(CDE,5,2,ADR(A$),LEN(A$)):POK
E 20,0
320 IF PEEK(20)<150 THEN 320
330 FOR I=10 TO 100:X=RND(0)*40:Y=RND(
0)*24:A=USR(CDE,X,Y,ADR(A$),LEN(A$))
340 NEXT I
350 FOR I=0 TO 150:NEXT I:? "K":POSITI
ON 14,2:? "END OF DEMO":END
370 REM ** DATA FOR MACHINE CODE **
390 DATA 169,0,162,5,149,203,202,16,25
1,104,201,2,208,6,164,84,166,85,208,27
,104,104,170,104
400 DATA 104,168,224,41,16,4,192,24,14
4,13,104,104,104,104,169,141,133,212,1
69,0,133,213,96,169
410 DATA 0,136,48,11,24,105,40,133,207
,144,246,230,208,208,242,165,207,24,10
1,88,133,207,165,208
420 DATA 101,89,133,208,138,24,101,207
,133,207,144,2,230,208,104,133,204,104
,133,203,104,133,209,104
430 DATA 170,208,2,198,209,165,207,133
,205,165,208,133,206,160,0,177,203,201
,155,240,49,72,41,127
440 DATA 201,32,16,6,104,24,105,64,144
,11,201,96,16,6,104,56,233,32,176,1,10
4,145,205,208
450 DATA 208,4,230,204,230,206,202,208
,214,198,209,16,210,169,1,133,212,169,
0,133,213,96,202,208,4,198,209
460 DATA 48,240,165,207,24,105,40,133,
207,144,2,230,208,152,56,101,203,133,2
03,144,165,204,208,161
```

Tell us what you do
with your RAM.
Write an article today!

(not to scale)

Route 161

Morse Road

Route 315 | High St. | Route 71 | Karl Rd.

Northland Mall

De Sales High

-> Park Here!

Ferris Rd.

Henderson Rd.

Cooke Road

Cleveland Ave.

Oakland Park

E.N. Broadway

An official Users' Group, the Atari Computer Enthusiasts of Columbus meets on the SECOND MONDAY of each month. The meetings are held at 7:15 p.m., at De Sales High School on Karl Road. Meetings are open to the public, and consist of demonstrations and short tutorials of products for the Atari Home Computer Systems. Dues for ACEC are $12.00 per year, and include a subscription to Fuji Facts, and more!

WGL '87

TO:

MEETING: July 13th, 7:15 pm